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INVENTORY SHORTAGE IN FOOD RETAILING

AND WHOLESALING

Retail and Distribution Center Operations

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The Food Marketing Institute (FMI) is a non-profit association that conducts programs in research, education and public affairs on behalf of its 1,100 members--food retailers and wholesalers and their customers in the United States and overseas. FMI's domestic member companies operate over 17,000 retail food stores with a combined annual sales volume of $125 billion--half of all grocery sales in the United States. More than three-fourths of FMI's membership is comprised of independent supermarket operators or small regional firms. Its international membership includes more than 100 members from 37 nations.

EXECUTIVE SUMMARY

Inventory shortage is a critical part of total operations. With razor thin profit margins of about one percent, food retailers pay close attention to the procedures involved in keeping their inventory shortage as low as possible. Inventory shortage for this survey was defined as any unexplained loss, including losses due to theft of merchandise, incorrect pricing practices, breakage, salvage, carelessness, negligence and error.

In this survey, food retailers reported an average total store inventory shortage of 1.10 percent. While the lowest shortage was reported to be .40 percent for the grocery department, the highest shortages were found in the perishable and nonfood departments. Inventory shortage is a critical part of total operations.

As compared to store-level shrink, distribution center shortage is quite low, .11 percent in the average dry grocery warehouses. Warehouse with perishable commodities reported inventory shortage of .25 percent for produce and .40 percent for meat.

Inventory is calculated and counted in a variety of ways. For instance, in calculating the meat department shortage, the majority of companies use markup percentage developed from purchases and warehouse billings. In taking inventory in the produce department, all companies rely on store personnel and some companies use personnel from other areas as well.

Various security methods are used by the participating companies. The majority of stores are secured by in-house security officers, contract security officers, or burglar alarms. Few companies reported using product sensor systems.

For the internal auditor, responsibilities are sometimes varied. Participants listed a wide range of auditing activities, from DSD vendor invoices to scanning tests to energy usage. Over a quarter of the respondents said each supermarket was visited at least five times per year by internal auditors.

Control in the area of direct store delivery may consist of several different types of procedures. The procedures found in the majority of stores included limiting the hours when stores will accept deliveries, having written policies, or counting the items as they are delivered.

Security programs involving sealing the trailer before it leaves the distribution center area were used by over 91 percent of the companies. However, only 36 percent of the companies used padlocks on their trucks. Almost all companies restricted the receiving areas to authorized trucks and applied a security check before vehicles could leave the area.

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INTRODUCTION

Inventory shortage is a critical part of total operations. With razor thin profit margins of about one percent, food retailers pay close attention to the procedures involved in keeping their inventory shortage as low as possible. Inventory shortage for this survey was defined as any unexplained loss, including losses due to theft of merchandise, incorrect pricing practices, breakage, salvage, carelessness, negligence and error.

Because inventory shortage is so important, Food Marketing Institute developed an Inventory Shortage report based on answers to a questionnaire distributed to food retailers and wholesalers. This report presents industry benchmark figures for inventory shortage by department in stores and by commodity in distribution centers as well as the procedures and controls used by retailers and wholesalers. This is the only comprehensive report of its type available to the industry.

We would like to express our appreciation to those who contributed ideas and comments to this study. Their suggestions provided useful statistics that retailers and wholesalers can use in judging their companies' performances. Special thanks to John Arthur of Lucky Stores for his help in the initial phase of the survey and his continuous support throughout the process.

Methodology

During the summer of 1983, Inventory Shortage questionnaires were sent to each U.S. and Canadian Food Marketing Institute member. The survey was designed to:

* provide benchmark inventory shortage figures in store departments as well as in distribution centers handling specific commodities,
* understand calculation and mechanical procedures involved in tracking, computing and controlling shrink,
* specify types of audits performed, and
* present systems used in controlling direct store delivery and distribution center deliveries.

All data were weighted by company sales. This gives more value to the larger companies and the results are more representative of the participating companies.

Answers to related questions have been consolidated into tables 7-12, 18-20, 35 and 51-52.

Participants

The questionnaires were sent to the Vice President of Finance in companies with less than $50 million in annual sales and to the Internal Auditor in those companies with more than $50 million in annual sales.

Surveys were sent to 997 companies. A total of 217 companies, 22 percent of the companies, returned a questionnaire: 201 companies were primarily retailers and 16 were primarily wholesalers. Table 1 gives a profile by annual company sales. Because several wholesalers operate supermarkets and the larger retailers operate warehouses, retailers and wholesales will appear in both the retail and distribution center sections. The smaller companies were less likely to complete many of the questions due to lack of information available in their companies.

TABLE 1

PROFILE OF PARTICIPANTS

ANNUAL SALES

PRIMARY TYPE OF OPERATION

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	201	16
Less than $10 Million	27.4%	6.3%
$10 - $50 Million	35.3%	6.3%
$51 - $100 Million	7.0%	12.5%
$101 - $250 Million	8.0%	12.5%
$251 - $500 Million	9.5%	18.8%
$501 - $1 Billion	8.5%	31.3%
Over $1 Billion	4.5%	12.5%

Inventory Shortage

Companies were asked to supply information on their inventory shortage in the retail supermarket for total store and for four departments: grocery, nonfood, produce and meat. For this survey, inventory shortage was defined as any unexplained loss, including losses due to theft of merchandise, incorrect pricing practices, breakage, salvage, carelessness, negligence and error.

Participating retail companies reported an average total store inventory shortage of 1.10 percent of total sales. Larger companies, those with 50 to 100 stores had the lowest total shortage, 0.93 percent; next were companies with over 100 stores, 1.04 percent. The smaller companies experienced the highest level of shrink: 1.54 percent for companies with 11 to 49 stores and 1.24 percent for those operating two to 10 stores. These total store figures may be higher than those commonly seen in other reports. This is because it is often easier for a company to provide a grocery department shortage number. However, the grocery department experiences the lowest shortage rate of all supermarket departments and does not include the products with higher shrink rates, such as produce and meat.

The lowest departmental shortage was in the grocery department, 0.40 percent; whereas, the highest shortage was in the produce department, 4.02 percent. Shortage for these departments as well as for the meat and nonfood departments are presented in tables 2 through 6. These tables supply the mean shortage for each department and for each size company. In addition, the tables also show the percentage of companies that experience shrink within a given category. For example, in table 2, 9.1 percent of the companies had between 0.01 percent and 0.30 percent shrinkage.

TABLE 2

RETAIL INVENTORY SHORTAGE FOR THE
TOTAL STORE AS A PERCENTAGE OF SALES IN 1982*

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	77	3	33	11	7	3
LEVEL OF SHORTAGE						
0.01%-0.30%	9.1%	.0%	.0%	.0%	.0%	11.8%
0.31%-0.59%	21.2%	8.3%	.0%	25.0%	66.7%	.0%
0.60%-1.00%	6.1%	.0%	50.0%	25.0%	.0%	.0%
OVER 1.00%	66.7%	91.7%	50.0%	50.0%	44.4%	88.2%
MEAN SHORTAGE	1.10	1.15	1.24	1.54	.93	1.04

* Data will sometimes add to more than or less than 100% due to rounding and weighting.

TABLE 3

RETAIL INVENTORY SHORTAGE FOR THE
GROCERY DEPARTMENT BY SIZE AND TYPE OF COMPANY, 1982

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	108	8	39	19	17	10
LEVEL OF SHORTAGE						
0.01%-0.30%	53.4%	15.0%	33.3%	25.0%	57.1%	58.2%
0.31%-0.59%	26.2%	80.0%	33.3%	25.0%	28.6%	26.9%
0.60%-1.00%	15.5%	5.0%	33.3%	50.0%	9.5%	10.4%
OVER 1.00%	4.9%	.0%	33.3%	.0%	4.8%	4.5%
MEAN SHORTAGE	.40	.35	.83	.55	.37	.36

TABLE 4

RETAIL INVENTORY SHORTAGE FOR THE
NONFOOD DEPARTMENT BY SIZE AND TYPE OF COMPANY, 1982

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	71	5	22	13	12	6
LEVEL OF SHORTAGE						
0.01%-0.30%	6.5%	13.3%	.0%	12.5%	.0%	7.8%
0.31%-0.59%	5.2%	6.7%	.0%	.0%	6.3%	5.9%
0.60%-1.00%	40.3%	.0%	50.0%	12.5%	6.3%	54.9%
OVER 1.00%	48.1%	73.3%	50.0%	75.0%	93.8%	29.4%
MEAN SHORTAGE	1.65	1.59	1.74	1.94	2.70	1.25

TABLE 5

RETAIL INVENTORY SHORTAGE FOR THE
PRODUCE DEPARTMENT BY SIZE AND TYPE OF COMPANY, 1982

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	68	3	32	11	3	2
LEVEL OF SHORTAGE						
0.01%-0.30%	.0%	.0%	.0%	.0%	.0%	
0.31%-0.59%	3.7%	.0%	.0%	16.7%	.0%	
0.60%-1.00%	3.7%	.0%	.0%	16.7%	.0%	
OVER 1.00%	88.9%	100.0%	100.0%	66.7%	133.3%	
MEAN SHORTAGE	4.02	3.50	3.78	3.64	6.31	

TABLE 6

RETAIL INVENTORY SHORTAGE FOR THE
MEAT DEPARTMENT BY SIZE AND TYPE OF COMPANY, 1982

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	61	2	29	11	3	2
LEVEL OF SHORTAGE						
0.01%-0.30%	7.1%		.0%	25.0%	.0%	
0.31%-0.59%	14.3%		.0%	37.5%	33.3%	
0.60%-1.00%	10.7%		.0%	25.0%	33.3%	
OVER 1.00%	67.9%		50.0%	25.0%	33.3%	
MEAN SHORTAGE	2.19		2.17	1.10	1.36	

Calculating Inventory Shortage

Companies were given a series of six procedures which could be used to calculate shrink and asked which of these procedure were used in their companies. Multiple responses were accepted. The procedures were:

a. using markup percentages developed from purchases
b. using markup percentages developed from warehouse billings
c. comparing physical results to perpetual
d. comparing actual to expected gross margins
e. considering the effect of price changes
f. developing a shrink percentage for each store

Tables 7 through 12 present the procedures by department and the percentage of companies which used each procedure. Because companies often rely on several procedures to calculate their shrink, the types of procedures by department may add to more than 100 percent.

TABLE 7

COMPANIES USING MARKUP PERCENTAGES DEVELOPED
FROM PURCHASES IN CALCULATING SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	27.6%	51.5%	33.3%	50.0%	74.1%	11.8%
Grocery Department	58.8%	84.8%	50.0%	58.8%	77.4%	53.6%
Nonfood Department	59.9%	84.8%	33.3%	56.3%	76.7%	56.0%
Produce Department	51.1%	45.5%	33.3%	50.0%	75.0%	46.2%
Meat Department	59.3%	78.8%	33.3%	40.0%	76.9%	58.2%

TABLE 8

COMPANIES USING MARKUP PERCENTAGES DEVELOPED FROM
WAREHOUSE BILLING IN CALCULATING SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	33.8%	78.8%	66.7%	54.5%	67.9%	20.6%
Grocery Department	58.0%	78.8%	50.0%	68.8%	71.0%	52.8%
Nonfood Department	56.7%	78.8%	66.7%	66.7%	70.0%	51.4%
Produce Department	59.7%	78.8%	66.7%	50.0%	76.9%	55.6%
Meat Department	59.8%	78.8%	33.3%	53.3%	81.5%	55.6%

TABLE 9

COMPANIES COMPARING PHYSICAL RESULTS
TO PERPETUAL WHEN CALCULATING SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	39.5%	54.5%	50.0%	66.7%	96.4%	17.6%
Grocery Department	73.8%	65.7%	75.0%	70.6%	102.9%	66.9%
Nonfood Department	72.7%	66.7%	66.7%	66.7%	100.0%	65.8%
Produce Department	34.8%	54.5%	66.7%	30.8%	92.0%	18.8%
Meat Department	35.0%	54.5%	66.7%	28.6%	96.2%	18.8%

TABLE 10

COMPANIES COMPARING ACTUAL TO EXPECTED GROSS
MARGIN WHEN CALCULATING SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	42.1%	97.0%	75.0%	70.0%	84.0%	21.3%
Grocery Department	43.9%	97.1%	100.0%	76.5%	81.3%	26.7%
Nonfood Department	39.6%	100.0%	100.0%	75.0%	83.3%	19.2%
Produce Department	57.1%	97.0%	75.0%	78.6%	77.8%	48.3%
Meat Department	56.4%	97.0%	75.0%	85.7%	72.4%	48.3%

TABLE 11

COMPANIES WHICH CONSIDER THE EFFECT OF
PRICE CHANGES WHEN CALCULATING SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	44.4%	81.8%	66.7%	46.2%	84.6%	32.2%
Grocery Department	70.5%	79.4%	75.0%	60.0%	79.4%	69.2%
Nonfood Department	72.6%	81.8%	66.7%	57.1%	78.1%	73.7%
Produce Department	45.3%	78.8%	66.7%	46.2%	76.0%	36.5%
Meat Department	39.7%	63.2%	66.7%	50.0%	41.7%	36.5%

TABLE 12

COMPANIES WHICH DEVELOP A SHRINK PERCENTAGE
FOR EACH STORE WHEN CALCULATING SHRINK:

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	38.5%	82.4%	50.0%	58.3%	85.2%	24.8%
Grocery Department	82.8%	85.3%	75.0%	82.4%	97.1%	79.2%
Nonfood Department	83.1%	84.8%	66.7%	68.8%	100.0%	81.7%
Produce Department	54.6%	78.8%	66.7%	50.0%	65.4%	52.3%
Meat Department	54.8%	78.8%	33.3%	53.8%	66.7%	52.3%

Inventory Procedures

All companies completing the survey reported that they take complete departmental inventories at some time and most said that they take total store inventories. However, the time schedule for taking inventories differs quite a bit. Fifty-six percent of the retail companies take complete store inventory every three to four months; whereas for 40 percent of the retailers, there is no set time when store inventories are taken. Tables 13 through 17 give the typical time schedules for taking inventories for total store and for each of the four departments.

TABLE 13

HOW OFTEN COMPLETE INVENTORIES ARE TAKEN FOR THE TOTAL STORE*

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	116	7	56	17	6	2
Every 3 to 4 Months	56.0%	100.0%	75.0%	100.0%	90.5%	
6 Months	2.7%	.0%	.0%	.0%	4.8%	
Fluctuates	40.0%	.0%	.0%	.0%	9.5%	

* Data will sometimes add to more than or less than 100% due to rounding and weighting.

TABLE 14

HOW OFTEN COMPLETE INVENTORIES ARE TAKEN FOR THE GROCERY DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	147	10	59	24	20	13
Evert 2 Months	.5%	.0%	.0%	5.6%	.0%	.0%
Every 3 to 4 Months	61.8%	100.0%	100.0%	83.3%	94.6%	48.4%
6 Months	3.2%	.0%	.0%	.0%	.0%	4.0%
Fluctuates	18.3%	.0%	.0%	.0%	5.4%	25.4%
Other	15.6%	.0%	.0%	5.6%	.0%	22.2%

TABLE 15

HOW OFTEN COMPLETE INVENTORIES ARE TAKEN FOR THE NONFOOD DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	131	10	52	23	17	10
Every 2 Months	.6%	.0%	.0%	5.9%	.0%	.0%
Every 3 to 4 Months	58.2%	100.0%	75.0%	82.4%	94.1%	42.1%
6 Months	4.1%	.0%	.0%	5.9%	.0%	4.4%
Fluctuates	20.0%	.0%	.0%	.0%	5.9%	28.1%
Other	17.1%	.0%	.0%	5.9%	.0%	24.6%

TABLE 16

HOW OFTEN COMPLETE INVENTORIES ARE TAKEN FOR THE PRODUCE DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Companies	100.0% 141	100.0% 10	100.0% 55	100.0% 24	100.0% 19	100.0% 12
Weekly	18.5%	[illegible].%	25.0%	5.9%	2.9%	25.0%
Every 2 Weeks	11.8%	50.0%	.0%	17.6%	42.9%	1.7%
Monthly	48.3%	36.1%	25.0%	47.1%	45.7%	50.0%
Every 3 to 4 Months	20.8%	5.6%	25.0%	29.4%	8.6%	23.3%

TABLE 17

HOW OFTEN COMPLETE INVENTORIES ARE TAKEN FOR THE MEAT DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Companies	100.0% 139	100.0% 10	100.0% 54	100.0% 24	100.0% 19	100.0% 12
Weekly	18.5%	11.1%	25.0%	.0%	5.7%	25.0%
Every 2 Weeks	4.5%	8.3%	25.0%	17.6%	5.7%	1.7%
Monthly	56.2%	77.8%	25.0%	52.9%	82.9%	50.0%
Every 3 to 4 Months	20.2%	5.6%	25.0%	29.4%	5.7%	23.3%

Companies were asked who usually took their store and departmental inventories. Answers included in-house personnel as well as contract personnel, with a mix of labor for most departments. Table 18 shows the percentage of companies who relied on store personnel to take inventories. For instance, total store inventory was taken by store personnel in 33.3 percent of the companies; for the nonfood department, the nonfood store personnel took the inventory in 23.2 percent of the companies; and for produce and the meat departments, all companies relied on store personnel.

TABLE 18

PERCENTAGE OF COMPANIES WHERE INVENTORIES ARE TAKEN BY STORE PERSONNEL

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	33.3%	11.8%	.0%	57.1%	.0%	37.3%
Grocery Department	25.3%	9.5%	.0%	25.0%	.0%	30.6%
Nonfood Department	23.2%	9.5%	.0%	25.0%	.0%	27.7%
Produce Department	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Meat Department	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Over ten percent of the retail companies had their own company inventory crews take total store inventories. These crews were more likely to take the dry grocery inventory, 50.9 percent, and nonfood inventory, 49.6 percent, than produce inventory, 2.5 percent, or meat department inventory, 2.5 percent. Table 19 shows the percentage of companies using this inventory method.

TABLE 19

PERCENTAGE OF COMPANIES WHERE INVENTORIES ARE TAKEN BY COMPANY INVENTORY CREWS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	10.7%	.0%	.0%	.0%	14.3%	10.9%
Grocery Department	50.9%	4.8%	.0%	20.0%	47.6%	56.2%
Nonfood Department	49.4%	4.8%	.0%	20.0%	42.1%	55.8%
Produce Department	2.5%	.0%	.0%	6.7%	11.8%	.0%
Meat Department	2.5%	.0%	.0%	6.7%	11.8%	.0%

Smaller companies are more likely to contract out the inventory process for total store, grocery and nonfood departments than are larger companies. Seventy-five percent of the companies operating two to 10 stores use a contract service whereas only 11.8 percent of the companies operating more than 100 stores do. Contract services are least likely to inventory the produce and meat departments. Contract services are detailed in table 20.

TABLE 20

PERCENTAGE OF COMPANIES WHERE INVENTORIES ARE TAKEN BY A CONTRACT SERVICE

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	20.7%	11.8%	75.0%	50.0%	42.9%	11.8%
Grocery Department	65.3%	68.4%	100.0%	85.0%	86.5%	54.6%
Nonfood Department	69.1%	97.4%	100.0%	85.0%	88.6%	60.0%
Produce Department	22.3%	9.5%	25.0%	13.3%	.0%	26.7%
Meat Department	22.3%	9.5%	33.3%	13.3%	.0%	26.7%

If store personnel took inventory, the accounting department or bookkeepers were most likely to reconcile the book inventories to physical inventories regardless of department, see tables 21-25. Almost all companies where inventories were taken by store employees are taken by employees working in the same department.

TABLE 21

WHO USUALLY RECONCILES BOOK INVENTORY TO PHYSICAL INVENTORIES
FOR TOTAL STORE

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	109	7	43	20	12	6
Headquarters/Office Corporate Office	28.1%	11.1%	.0%	18.2%	14.3%	34.5%
Accounting/ Accounting Dept/ Bookkeeper	61.4%	66.7%	33.3%	54.5%	64.3%	62.1%
Controller	3.5%	.0%	.0%	18.2%	.0%	.0%
Outside	3.5%	11.1%	33.3%	.0%	7.1%	.0%
Other	3.5%	.0%	.0%	.0%	14.3%	.0%

TABLE 22

WHO USUALLY RECONCILES BOOK INVENTORY TO PHYSICAL INVENTORIES
FOR GROCERY DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	118	8	47	22	15	10
Headquarters/Office Corporate Office	13.5%	12.5%	.0%	8.3%	35.3%	10.8%
Accounting/ Accounting Dept/ Bookkeeper	81.7%	87.5%	33.3%	83.3%	52.9%	89.2%
Controller	2.4%	.0%	.0%	16.7%	.0%	.0%
Outside	.8%	.0%	33.3%	.0%	5.9%	.0%
Other	1.6%	.0%	.0%	.0%	11.8%	.0%

TABLE 23

WHO USUALLY RECONCILES BOOK INVENTORY TO PHYSICAL INVENTORIES
FOR NONFOOD DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	112	8	45	22	12	9
Headquarters/Office Corporate Office	13.7%	12.5%	.0%	8.3%	28.6%	11.5%
Accounting/ Accounting Dept/ Bookkeeper	82.1%	87.5%	33.3%	83.3%	57.1%	88.5%
Controller	2.6%	.0%	.0%	16.7%	.0%	.0%
Outside	.9%	.0%	33.3%	.0%	.0%	.0%
Other	1.7%	.0%	.0%	.0%	14.3%	.0%

TABLE 24

WHO USUALLY RECONCILES BOOK INVENTORY TO PHYSICAL INVENTORIES
FOR PRODUCE DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	117	8	49	20	15	8
Headquarters/Office Corporate Office	13.7%	4.5%	.0%	9.1%	19.4%	11.8%
Accounting/ Accounting Dept/ Bookkeeper	71.0%	27.3%	33.3%	72.7%	29.0%	88.2%
Controller	2.3%	.0%	.0%	18.2%	.0%	.0%
Outside	.8%	.0%	33.3%	.0%	.0%	.0%
Other Store Level Personnel	.8%	.0%	.0%	.0%	.0%	.0%
Other	13.0%	68.2%	.0%	.0%	51.6%	.0%

TABLE 25

WHO USUALLY RECONCILES BOOK INVENTORY TO PHYSICAL INVENTORIES FOR MEAT DEPARTMENT

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	118	8	49	20	16	8
Headquarters/Office Corporate Office	14.4%	4.5%	.0%	9.1%	21.9%	11.8%
Accounting/ Accounting Dept/ Bookkeeper	70.5%	27.3%	33.3%	72.7%	28.1%	88.2%
Controller	2.3%	.0%	.0%	18.2%	.0%	.0%
Outside	.8%	.0%	33.3%	.0%	.0%	.0%
Other Store Level Personnel	.8%	.0%	.0%	.0%	.0%	.0%
Other	12.9%	68.2%	.0%	.0%	50.0%	.0%

Security

Companies were asked what percent of their stores were covered by specific types of security methods. Several methods were used to some degree by most companies. Sixty percent of the companies had in-house security in some stores and 21 percent had in-house security in all stores. Smaller and mid-sized companies, those with less than 100 stores, were more likely to have all stores staffed with security personnel, see table 26.

TABLE 26

PERCENTAGE OF STORES THAT ARE COVERED BY IN-HOUSE SECURITY OFFICERS/PERSONNEL

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	151	12	67	21	19	14
PERCENT OF STORES						
Zero	18.8%	.0%	40.0%	13.3%	14.3%	20.0%
1% - 99%	60.2%	45.9%	20.0%	40.0%	22.9%	73.8%
100%	21.0%	54.1%	40.0%	53.3%	62.9%	5.4%

Contract security officers were used more often as the company became larger. Only 6.6 percent of those companies with more than 100 stores didn't have any store with contract security personnel, see table 27.

TABLE 27

PERCENTAGE OF STORES THAT ARE COVERED BY CONTRACT SECURITY OFFICERS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	145	12	62	22	22	12
PERCENT OF STORES						
Zero	14.3%	7.9%	60.0%	37.5%	23.1%	6.6%
1% - 99%	73.1%	42.1%	20.0%	50.0%	38.5%	89.3%
100%	13.2%	47.4%	20.0%	12.5%	41.0%	3.3%

Even burglar alarms were not used by all companies in every store. Less than a majority, 42.4 percent, of the companies had alarms in every store, see table 28.

TABLE 28

PERCENTAGE OF STORES THAT ARE COVERED BY BURGLAR ALARM

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	176	12	71	30	22	13
PERCENT OF STORES						
Zero	7.1%	31.4%	20.0%	.0%	2.6%	9.2%
1% - 99%	51.1%	5.7%	20.0%	25.0%	15.4%	68.3%
100%	42.4%	62.9%	60.0%	70.0%	84.6%	21.7%

The least used security device was the product sensor system. Over seventy percent of the companies had no sensor system in any store, see table 29.

TABLE 29

PERCENTAGE OF STORES THAT ARE COVERED BY PRODUCT SENSOR SYSTEM

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	130	9	55	20	20	13
PERCENT OF STORES						
Zero	70.5%	96.9%	100.0%	100.0%	97.3%	57.5%
1% - 49%	23.3%	3.1%	.0%	.0%	2.7%	32.5%
50% - 100%	6.8%	.0%	.0%	.0%	.0%	9.2%

Internal Auditors' Activities, Store and Office

In over a quarter of all companies, internal auditors visited each supermarket at least five times per year. Mid-sized companies usually had auditors visit stores one to three times per year. Internal auditors in the larger companies tended to make more visits, see table 30.

TABLE 30

NUMBER OF TIMES EACH STORE IS VISITED BY AN INTERNAL AUDITOR PER YEAR

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	167	11	67	28	23	11
NUMBER OF VISITS						
Zero	7.3%	5.6%	40.0%	6.7%	20.0%	.0%
1	20.7%	.0%	.0%	20.0%	5.0%	26.9%
2	17.1%	55.6%	20.0%	40.0%	50.0%	.0%
3	11.0%	.0%	.0%	6.7%	10.0%	12.5%
4	18.9%	38.9%	20.0%	13.3%	7.5%	24.0%
5+	25.6%	.0%	20.0%	6.7%	5.0%	36.5%

Internal auditors perform a variety of activities besides the store audits. Those in larger companies who completed the survey generally listed more specific tasks compared to those in smaller companies who listed both specific tasks as well as general headquarters responsibilities. Following is a list of activities as named by the respondents.

Larger Companies:

receiving controls
examine warehouse deliveries
audit DSD vendor invoices
cash register procedures
security audits
energy audits
retail price integrity
shopping tests
vending machine audits
money orders
review of cashier performance records
shrink analysis actual verses estimated
physical inventories
bank statements
review bad check losses
cash management
scanning tests
inventory verification
coupon redemption
time cards audits
unsalable damage credits
shipping and billing

Smaller companies:

cash counts
weekly gross reports
quarterly cash audits
DSD receipts
financial audits
review of physical equipments
comparison of incoming product to invoice
central office audits
security
review records purchase
cashier accuracy
sample physical inventory

When categorized by function, the most represented activity is in the area of receivables, cash and checks, which was mentioned by 59.7 percent of all retailers. Next are pricing, mentioned by 40.9 percent, loss prevention, 24.2 percent, and direct store delivery, 20.1 percent. Table 31 describes the types of audits performed for store operations.

TABLE 31

OUTSIDE OF STORE AUDITS, OTHER TYPES OF AUDITS INTERNAL AUDITORS PERFORM RELATIVE TO STORE OPERATIONS*

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Companies	69	5	25	14	11	11
Physical Inventory	3.4%	9.1%	.0%	10.0%	8.0%	1.8%
Loss Prevention	24.2%	.0%	.0%	.0%	20.0%	27.9%
DSD	20.1%	.0%	.0%	10.0%	4.0%	25.2%
Coupons	7.4%	.0%	.0%	10.0%	.0%	9.0%
Pricing	40.9%	13.6%	.0%	30.0%	16.0%	48.6%
Receivables, Cash, Checks	59.7%	77.3%	50.0%	30.0%	72.0%	60.4%
Delivery/ Receiving	10.1%	9.1%	.0%	10.0%	20.0%	8.1%
Procedures/ Policy	6.0%	.0%	.0%	10.0%	8.0%	5.4%
Bank Statement Invoices	14.8%	.0%	.0%	.0%	8.0%	18.0%
Individual Depts./ Personnel	12.8%	27.3%	.0%	20.0%	20.0%	9.9%
Productivity	.7%	.0%	.0%	10.0%	.0%	.0%
Other	31.5%	4.5%	50.0%	30.0%	20.0%	34.2%

* Adds to more than 100% due to multiple responses.

Point of Sale

Tables 32-34 describe the types of cash registers an average company had in their operations: scanners, electronic cash registers and mechanical cash registers. The majority of companies, 65.9 percent, had scanners installed in less than 50 percent of their operations. Thirty-seven percent of the companies with 50 to 100 companies had scanners in 100 percent of their stores. The least used equipment was the mechanical cash register, installed in few stores.

TABLE 32

PERCENTAGE OF ALL STORES THAT HAVE SCANNING CASH REGISTERS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	130	12	43	30	23	13
PERCENT OF STORES						
0% - 9%	10.5%	18.4%	.0%	15.0%	22.5%	6.3%
10% - 25%	36.1%	36.8%	25.0%	25.0%	17.5%	44.4%
26% - 49%	29.3%	.0%	25.0%	20.0%	7.5%	38.1%
50% - 99%	11.0%	5.3%	50.0%	30.0%	17.5%	4.8%
100%	13.6%	39.5%	25.0%	10.0%	37.5%	7.1%

TABLE 33

PERCENTAGE OF ALL STORES
THAT HAVE ELECTRONIC CASH REGISTERS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	159	12	68	31	22	12
PERCENT OF STORES						
1%-25%	7.6%	8.3%	20.0%	27.8%	16.0%	2.5%
26%-49%	19.9%	4.2%	.0%	16.7%	16.0%	23.1%
50%-74%	46.2%	50.0%	20.0%	22.2%	36.0%	53.7%
75%-99%	21.6%	29.2%	20.0%	33.3%	36.0%	18.2%
100%	4.1%	.0%	40.0%	11.1%	.0%	3.3%

TABLE 34

PERCENTAGE OF ALL STORES THAT HAVE
MECHANICAL CASH REGISTERS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	66	8	20	15	16	10
PERCENT OF STORES						
Zero	47.9%	4.8%	50.0%	63.6%	26.3%	49.6%
1%-49%	48.6%	85.7%	50.0%	36.4%	63.2%	47.8%
50%-100%	3.5%	4.8%	.0%	.0%	10.5%	2.7%

For those retail companies with scanners, only between four and seven percent used this equipment to calculate inventory shortage. For example, only 6.7 percent used the data to calculate inventory shrink for the total store and 6.9 percent used scanners to calculate inventory shrink for the grocery department. However, companies with 50 to 100 stores are much more likely to use scanning data for inventory control then any other category. Table 35 shows the percentages using scanners for shortage tracking by department.

TABLE 35

FOR THOSE STORES WITH SCANNING, COMPANIES WHICH USE DATA TO CALCULATE INVENTORY SHRINK

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
Total Store	6.7%	.0%	.0%	6.3%	8.6%	5.3%
Grocery Department	6.9%	.0%	.0%	6.7%	26.3%	4.1%
Nonfood Department	7.4%	.0%	.0%	6.7%	29.4%	4.4%
Produce Department	5.9%	.0%	.0%	.0%	17.6%	4.3%
Meat Department	4.6%	.0%	.0%	.0%	5.9%	4.3%

Direct Store Delivery

Companies were questioned about their direct store delivery procedures. The results are presented in tables 36 through 41. The majority of retailers, 56 percent, had designated receiving hours at all their supermarkets. Only the larger companies, those with over 100 stores, were not likely to have designated receiving hours in 100 percent of their stores. In a large majority, approximately 90 percent of all companies, there were written receiving policies for direct store delivery and the items in each delivery were counted at store level 80 to 90 percent of the time.

TABLE 36

FOR DIRECT STORE DELIVERY, PERCENTAGE OF STORES WHERE THERE ARE DESIGNATED RECEIVING HOURS

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	194	13	80	33	21	14
PERCENT OF STORES						
100%	55.9%	89.5%	83.3%	71.4%	92.1%	41.5%
75%	19.5%	10.5%	16.7%	28.6%	7.9%	21.5%
50%	14.4%	.0%	.0%	.0%	.0%	21.5%
25%	.0%	.0%	.0%	.0%	.0%	.0%
0%	10.3%	.0%	.0%	.0%	.0%	15.4%

TABLE 37

FOR DIRECT STORE DELIVERIES, PERCENTAGE OF STORES WHERE THERE ARE WRITTEN RECEIVING POLICIES

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	191	13	78	33	21	14
PERCENT OF STORES						
100%	89.7%	94.7%	66.7%	81.0%	89.5%	91.5%
75%	5.6%	.0%	.0%	.0%	.0%	7.7%
50%	2.1%	2.6%	.0%	9.5%	2.6%	.0%
25%	1.0%	.0%	.0%	.0%	5.3%	.0%
0%	2.1%	.0%	16.7%	9.5%	2.6%	.0%

TABLE 38

FOR DIRECT STORE DELIVERIES, PERCENTAGE OF STORES WHERE THE ITEMS IN EACH DELIVERY ARE COUNTED AT STORE LEVEL

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	194	13	78	33	22	14
PERCENT OF STORES						
100%	80.7%	100.0%	83.3%	85.7%	94.9%	75.4%
75%	18.3%	.0%	.0%	14.3%	2.6%	24.6%
50%	.5%	.0%	.0%	.0%	2.6%	.0%
25%	.5%	.0%	.0%	.0%	2.6%	.0%
0%	.0%	.0%	.0%	.0%	.0%	.0%

TABLE 39

FOR DIRECT STORE DELIVERIES, PERCENTAGE OF STORES WHERE DELIVERIES ARE LIMITED TO THE DESIGNATED BACK DOOR

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	193	13	79	33	21	14
PERCENT OF STORES						
100%	39.8%	76.3%	66.7%	71.4%	76.9%	21.5%
75%	26.5%	21.1%	16.7%	23.8%	12.8%	31.5%
50%	7.1%	.0%	.0%	4.8%	5.1%	7.7%
25%	14.3%	.0%	.0%	.0%	.0%	21.5%
0%	12.2%	.0%	.0%	.0%	5.1%	16.9%

TABLE 40

FOR DIRECT STORE DELIVERIES, PERCENTAGE OF STORES WHERE ONLY ONE VENDOR IS PERMITTED IN THE RECEIVING AREA AT A TIME

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	188	13	77	32	21	14
PERCENT OF STORES						
100%	30.3%	52.6%	40.0%	52.4%	63.2%	16.9%
75%	26.2%	39.5%	20.0%	9.5%	.0%	37.7%
50%	20.0%	5.3%	.0%	19.0%	10.5%	23.1%
25%	1.0%	.0%	.0%	4.8%	2.6%	.0%
0%	22.6%	2.6%	40.0%	19.0%	23.7%	22.3%

The majority of companies had more than one person at each store authorized to receive. Larger companies are more likely then smaller companies to have more than one person able to authorize items arriving at the store. About one third of all companies in all categories had one person per department authorized to receive, see table 41.

TABLE 41

THE NUMBER OF AUTHORIZED RECEIVERS AT EACH STORE

	TYPE OF OPERATION		RETAIL STORE COUNT			
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	2-10	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	195	13	80	33	21	14
None	.5%	.0%	.0%	.0%	2.6%	.0%
One Per Department	29.1%	28.9%	33.3%	47.6%	5.1%	32.3%
One Per Store	15.3%	7.9%	16.7%	42.9%	7.7%	13.1%
One Per Shift	2.0%	10.5%	16.7%	4.8%	7.7%	.0%
More than One	53.6%	50.0%	16.7%	4.8%	79.5%	54.6%

Inventory Shortage

For distribution center inventory shortage, companies were asked to give the inventory shortage by type of commodity as a percent of distribution center dollar volume shipped at cost. Tables 42 through 46 present the average for each department as well as the percent of companies falling into specific shortage categories. The mean for each department is given on the last line of the table. For example, the average dry grocery inventory shortage figure for retailer-owned warehouses was lower than that of wholesaler-owned warehouses, 0.11 percent to 0.35 percent. Retailers experienced a lower rate than wholesalers in all areas except for meat shortage.

TABLE 42

DISTRIBUTION INVENTORY SHORTAGE FOR DRY GROCERY
WAREHOUSE AS PERCENTAGE OF DISTRIBUTION CENTER VOLUME SHIPPED AT COST

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLESALERS
	100.0%	100.0%
Total Companies	25	10
LEVEL OF SHORTAGE		
0.00%-0.03%	26.4%	50.0%
0.04%-0.10%	24.1%	38.9%
0.11% +	48.3%	11.1%
MEAN AVERAGE	.11	.35

TABLE 43

DISTRIBUTION INVENTORY SHORTAGE FOR FROZEN FOOD WAREHOUSE
AS PERCENTAGE OF DISTRIBUTION CENTER VOLUME SHIPPED AT COST

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	16	7
LEVEL OF SHORTAGE		
0.00%-0.03%	40.3%	6.1%
0.04%-0.10%	41.6%	78.8%
0.11% +	16.9%	12.1%
MEAN SHORTAGE	.10	.41

TABLE 44

DISTRIBUTION INVENTORY SHORTAGE FOR NONFOOD WAREHOUSE
AS PERCENTAGE OF DISTRIBUTION CENTER VOLUME SHIPPED AT CO

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	19	7
LEVEL OF SHORTAGE		
0.00%-0.03%	23.4%	39.4%
0.04%-0.10%	40.3%	3.0%
0.11% +	36.4%	54.5%
MEAN SHORTAGE	.19	.44

TABLE 45

DISTRIBUTION INVENTORY SHORTAGE FOR PRODUCE WAREHOUSE
AS PERCENTAGE OF DISTRIBUTION CENTER VOLUME SHIPPED AT COST

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLESALERS
	100.0%	100.0%
Total Companies	20	6
LEVEL OF SHORTAGE		
0.00%-0.03%	24.4%	46.9%
0.04%-0.10%		
0.11% +	74.4%	53.1%
MEAN SHORTAGE	.25	.72

TABLE 46

DISTRIBUTION INVENTORY SHORTAGE FOR MEAT WAREHOUSE
AS PERCENTAGE OF DISTRIBUTION CENTER VOLUME SHIPPED AT COST

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLESALERS
	100.0%	100.0%
Total Companies	19	7
LEVEL OF SHORTAGE		
0.00%-0.03%	54.9%	84.8%
0.04%-0.10%	5.9%	3.0%
0.11% +	41.2%	12.1%
MEAN SHORTAGE	.40	.23

Seal/Padlock Programs

The survey inquired into two types of fleet security programs: seal programs and padlock programs. Retailers were more likely than wholesalers to have a truck/trailer seal program. Only nine percent of the retailers compared to 20 percent of the wholesalers said that they did not have a seal program. Fewer companies operated padlock programs. Between 30 and 40 percent of the retailers and wholesalers had padlock programs for their fleets. Tables 47 and 48 provide information on the percentage of companies who had seal programs and tables 49 and 50 provide information on the percentage of companies who had padlock programs.

TABLE 47

PERCENTAGE OF COMPANIES WITH A TRUCK/TRAILER SEAL PROGRAM*

	TYPE OF OPERATION		RETAIL STORE COUNT		
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	11-49	50-100	OVER 100
Total Companies	100.0% 59	100.0% 14	100.0% 20	100.0% 21	100.0% 14
Yes, from the Distribution Center	89.8%	81.8%	64.7%	92.3%	92.3%
Yes, to the Distribution Center	49.7%	43.2%	41.2%	59.0%	47.7%
Yes, Transfers from Other Stores	47.6%	40.9%	23.5%	71.8%	43.8%
No	8.6%	20.5%	47.1%	5.1%	4.6%

* Adds to more than 100% due to multiple answers.

TABLE 48

WHO USUALLY HAS CUSTODY OF THE SEALS

	TYPE OF OPERATION		RETAIL STORE COUNT		
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%
Total Which Have a Seal Program	40	9	11	16	11
Shipping Supervisor	10.9%	5.6%	45.5%	20.6%	5.0%
Driver	.0%	.0%	.0%	.0%	.0%
Receiving Clerks	2.4%	2.8%	.0%	11.8%	.0%
Traffic Dept.	4.8%	.0%	.0%	5.9%	4.2%
Distribution Center Manage-ment	18.2%	.0%	9.1%	5.9%	23.5%
Warehouse	32.1%	50.0%	18.2%	47.1%	29.4%
Dispatcher	7.3%	30.6%	.0%	2.9%	9.2%
Not Vested in One Person	.0%	.0%	.0%	.0%	.0%
Other	26.7%	11.1%	27.3%	17.6%	28.6%

TABLE 49

PERCENTAGE OF COMPANIES WITH A TRUCK/TRAILER PADLOCK PROGRAM

	TYPE OF OPERATION		RETAIL STORE COUNT		
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	11-49	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%	100.0%
Total Companies	56	14	20	19	14
Yes, from the Distribution Center	36.2%	34.1%	23.5%	16.2%	43.8%
Yes, to the Distribution Center	28.6%	4.5%	.0%	16.2%	35.4%
Yes, Transfers from Other Stores	23.8%	2.3%	.0%	10.8%	30.8%
No	64.3%	68.2%	88.2%	75.7%	58.5%

TABLE 50

WHO USUALLY HAS CUSTODY OF THE KEYS

	TYPE OF OPERATION		RETAIL STORE COUNT	
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	50-100	OVER 100
	100.0%	100.0%	100.0%	100.0%
Total Which Have a Padlock Program	16	5	4	7
Dispatcher & Driver/ Manager of Plant	14.9%	6.7%	14.3%	15.8%
Driver	9.0%	.0%	57.1%	5.3%
Store	23.9%	73.3%	.0%	26.3%
Transportation Office	17.9%	13.3%	28.6%	15.8%
Other	46.3%	.0%	.0%	54.4%

Other Security Programs

Almost all companies restricted the receiving areas for all types of warehouses to authorized trucks, and there was usually some type of security check made for cars and trucks when leaving the distribution center complex, see tables 51 and 52.

TABLE 51

PERCENT OF COMPANIES RESTRICTING RECEIVING AREAS TO AUTHORIZED TRUCKS

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Dry Grocery Warehouse	100.0%	100.0%
Frozen Food Warehouse	100.0%	97.7%
Nonfood Ware-house	96.6%	97.7%
Produce Ware-house	100.0%	100.0%
Meat Warehouse	96.7%	97.7%

TABLE 52

PERCENT OF COMPANIES WHERE CARS AND TRUCKS RECEIVE SECURITY CHECKS WHEN LEAVING THE TYPICAL DISTRIBUTION CENTER COMPLEX

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	54	14
Yes, All Vendors	57.6%	50.0%
Yes, All Company Trucks	46.8%	38.6%
Yes, All Private Automobiles	43.0%	34.1%
Yes, Spot Check	58.2%	47.7%
No	8.2%	11.4%

Inventory Procedures

Companies were asked if inventories in the warehouses were taken in cycle counts. This is the procedure of taking inventories on a set time schedule. The responses showed that wholesalers were more likely than retailers to do this. Only 15 to 26 percent of the retailers take inventories in cycle counts; whereas, 34 to 46 percent of the wholesalers do, see table 53.

TABLE 53

COMPANIES WHERE INVENTORIES
ARE TAKEN IN CYCLE COUNTS IN THE DISTRIBUTION CENTERS

	TYPE OF OPERATION		RETAIL STORE COUNT		
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	11-49	50-100	OVER 100
Dry Grocery Warehouse	26.0%	45.5%	53.8%	56.8%	13.8%
Frozen Food Warehouse	17.3%	34.1%	25.0%	50.0%	6.7%
Nonfood Warehouse	21.9%	36.4%	38.5%	51.4%	11.9%
Produce Warehouse	15.3%	45.2%	23.1%	48.6%	3.3%
Meat Warehouse	15.9%	37.2%	33.3%	51.4%	3.3%

More than 90 percent of all companies take wall-to-wall inventory. For dry grocery and nonfood warehouses, wall-to-wall inventories were usually taken quarterly for wholesaler operations and twice a year for retailer operations. In the wall-to-wall procedure, inventory is taken by area rather than by time schedule. Tables 54-59 present the information for the five types of warehouses.

TABLE 54

WHETHER INVENTORIES ARE TAKEN WALL-TO-WALL IN THE DISTRIBUTION CENTERS

	TYPE OF OPERATION		RETAIL STORE COUNT		
	TOTAL RETAILERS	TOTAL WHOLE-SALERS	11-49	50-100	OVER 100
Dry Grocery Warehouse	94.2%	100.0%	84.6%	92.3%	96.1%
Frozen Food Warehouse	94.6%	97.7%	90.9%	91.2%	96.1%
Nonfood Warehouse	98.0%	97.7%	100.0%	97.2%	100.0%
Produce Warehouse	98.7%	97.6%	91.7%	100.0%	100.0%
Meat Warehouse	98.0%	97.7%	90.9%	97.3%	100.0%

TABLE 55

HOW OFTEN INVENTORIES ARE TAKEN WALL-TO-WALL
FOR THE DRY GROCERY WAREHOUSE

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	40	11
Daily	.0%	.0%
Weekly	.0%	.0%
Monthly	.0%	.0%
Quarterly	15.6%	53.6%
Twice a Year	50.8%	32.1%
Annually	15.6%	14.3%
Other	17.2%	.0%

TABLE 56

HOW OFTEN INVENTORIES ARE TAKEN WALL-TO-WALL
FOR THE FROZEN FOOD WAREHCUSE

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	32	9
Daily	.0%	.0%
Weekly	.0%	.0%
Monthly	17.4%	.0%
Quarterly	35.7%	57.7%
Twice a Year	30.4%	26.9%
Annually	15.7%	15.4%
Other	1.7%	.0%

TABLE 57

HOW OFTEN INVENTORIES ARE TAKEN WALL-TO-WALL
FOR THE NONFOOD WAREHOUSE

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	35	9
Daily	.0%	.0%
Weekly	.0%	.0%
Monthly	1.7%	.0%
Quarterly	16.4%	57.7%
Twice a Year	55.2%	26.9%
Annually	10.3%	15.4%
Other	17.2%	.0%

TABLE 58

HOW OFTEN INVENTORIES ARE TAKEN WALL-TO-WALL
FOR THE PRODUCE WAREHOUSE

TYPE OF OPERATION
****

	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	36	6
Daily	5.0%	.0%
Weekly	39.2%	73.9%
Monthly	35.8%	26.1%
Quarterly	.0%	.0%
Twice a Year	10.8%	.0%
Annually	5.8%	4.3%
Other	3.3%	.0%

TABLE 59

HOW OFTEN INVENTORIES ARE TAKEN WALL-TO-WALL
FOR THE MEAT WAREHOUSE

	TYPE OF OPERATION ********** TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	35	9
Daily	2.6%	.0%
Weekly	41.7%	50.0%
Monthly	35.7%	23.1%
Quarterly	1.7%	.0%
Twice a Year	11.3%	19.2%
Annually	6.1%	7.7%
Other	1.7%	.0%

Store Billings and Adjustments

A large majority of all companies prepare billings in advance of order filling and then adjust these to actual shipments, see table 60.

TABLE 60

PERCENT OF COMPANIES PREPARING BILLING IN ADVANCE OF ORDER FILLING

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLE-SALERS
Total Companies	100.0%	100.0%
Dry Grocery Warehouse	96.3%	95.5%
Frozen Food Warehouse	96.1%	95.5%
Nonfood Ware-house	96.1%	95.5%
Produce Ware-house	90.8%	97.7%
Meat Warehouse	89.2%	90.9%

Adjustment are usually made to inventory for overages and shortages reported by store. Over 80 percent of all retailers and wholesalers made this adjustment, see tables 61 and 62.

TABLE 61

PERCENTAGE OF COMPANIES ADJUSTING BILLINGS TO ACTUAL SHIPMENTS

	TYPE OF OPERATION ********** TOTAL RETAILERS	TOTAL WHOLESALERS
Dry Grocery Warehouse	98.9%	95.2%
Frozen Food Warehouse	98.8%	92.9%
Nonfood Warehouse	98.8%	95.1%
Produce Warehouse	98.8%	92.9%
Meat Warehouse	100.0%	97.5%

TABLE 62

PERCENTAGE OF COMPANIES THAT MAKE ADJUSTMENTS TO INVENTORY FOR OVERAGES AND SHORTAGES REPORTED BY STORES

	TYPE OF OPERATION ********** TOTAL RETAILERS	TOTAL WHOLESALERS
	100.0%	100.0%
Total Companies	58	14
Make Adjustments	86.9%	88.6%

Internal Auditors' Activities

Forty-five companies responded with lists of types of audits performed by internal auditors. About a third of the companies included audits involving procedures, spot checks and receiving. Areas included are listed in table 63.

TABLE 63

TYPES OF AUDITS INTERNAL AUDITORS DO WITH REGARD TO THE DISTRIBUTION CENTER*

	TYPE OF OPERATION	
	TOTAL RETAILERS	TOTAL WHOLE-SALERS
	100.0%	100.0%
Total Companies	36	9
Procedures	41.3%	8.0%
Spot Checks/ Selected Items to Perpetual Inventory	32.9%	12.0%
Operations Review	15.5%	68.0%
Maintenance	2.6%	.0%
Transportation	4.5%	.0%
Price	1.3%	.0%
Low Stock Items	.6%	.0%
Receiving	33.5%	28.0%
Inventory	22.6%	20.0%
Payroll	9.0%	.0%
Financial	9.7%	60.0%
Labor	3.2%	16.0%
Other	69.7%	64.0%

* Will add to more than 100% due to multiple responses.

Some of the specific activities listed by the companies are the following:

observe physical inventory procedures
sample load accuracy audits
inventory is reconciled to the books
receiving and delivery procedures
test counts
delivery audits
truck shop audits
slot accuracy checks
order filling accuracy checks
store returns for damaged goods
off site merchandise
load breakdowns
security
compliance to company policy in transportation, maintenance, etc.
railroad claims
sanitation